UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,498	11/13/2001	Arnaud Gueguen	215352US2PCT	6655

			EXAMINER
22850	7590	01/13/2004	CHEN, TE Y

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ART UNIT	PAPER NUMBER
2171	7

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/926,498	GUEGUEN ET AL.
	Examiner	Art Unit	
	Susan Y Chen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3 & 5*.

4)☐ Interview Summary (PTO-413) Paper No(s). _____

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other:

U.S. Patent and Trademark Office

PTOL-326 (Rev. 11-03)   Office Action Summary   Part of Paper No. 7

DETAILED ACTION

1. Claims 1-9 are presented for examination,

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

The certified copy has been filed in parent Application No FRANCE 0003339, filed on 03/13/2000.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 02/07/2002 and 02/13/2002 are in

compliance with the provisions of MPEP § 609. It has been placed in the application file.

Accordingly, the information referred to therein has been considered as to the merits. (see attached

form).

Specification

5. The specification has not been checked to the extent necessary to determine the presence of

all possible minor errors. Applicants' cooperation is requested in correcting any errors of which

applicants may become aware in the specification. Also, it is noted that the instant claims contains no

line number. The preferred citation format for the claims is to number each line of every claim, with

each claim beginning with line 1. For ease of reference by both Examiner and Applicant all future

correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the lack and misuse of punctuation mark makes the lengthy claim difficult to determine exactly which units are connected to which units and which units perform which functions, for example, see lines 16-21.

As to claims 2-9, these claims have the same defects as their base claim, thus, are rejected for the same reason.

Due to the ambiguous nature of the claims, the following art rejection -- *35 USC § 102 (e)* is made as to the best as the examiner is able to ascertain.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No.

6,370,669 issued to Eroz et al. (thereinafter referred as '669 Eroz).

Claim 1:

'669 Eroz discloses the following as claimed by applicant, comprising:

- a automatic digital transmission method of error correction via Turbo code

encoding and decoding processing [e.g. Abstract; col. 5, lines 11-17; Fig. 1],

wherein, the method comprising:

  o a coding procedure [e.g. Turbo Code Encoder (208), Fig. 2; Fig. 3]

to generate a coded information item with redundancy for transmission

efficiency optimizing [e.g. col. 2, lines 1-9; lines 36-40, lines 48-56]; therein,

the coding procedure includes at least two elementary coding units [e.g., the

Constituent Encoder #1 (306), the Constituent Encoder #2 (308), Fig. 3]

couple to the respective puncturing units [e.g., the Puncture (312), Fig. 3], an

modifiable interleaving processing [e.g., the processing of Interleaver (304),

Fig. 3] taking place between two successive elementary coding units for

producing the efficiency coded output from an input unit [e.g. the Info Bits

(302), Fig. 3] via the corresponding puncturing [e.g. col. 2, lines 9-14; col. 6,

lines 28-43].

  o A iterative soft-decision decoding procedure [e.g., see the

processing of the First Constituent Decoder (406), the Second Constituent

Decoder (416), Fig. 4; col.1, lines 63-67] to de-interleaving and de-puncturing

the generated output from the corresponding coding elementary coding units

for yielding an optimized bit error rate performance [col.1, lines 63-67; col. 2,

lines 6-14; col. 6, lines 43-52].

o   A transmission method [the rate-compatible Turbo Codes

transmission method, col. 3, lines 41-52] coupled to a redundancy distribution

selection step [e.g. the rate matching schema, col. 9, lines 64] to observing

the transmission condition in order to determine at least one parameter

characteristic of the transmission condition [e.g., the payload of an available

physical channel, col. 19, line 63] in order to adapt the coding and decoding

procedures as a function of the selected redundancy distribution schema

[e.g., col. 9, lines 60 – col. 20, line 37].

Claim 2:

Except the features discussed above, '669 Eroz further discloses the following as claimed by

applicant, comprising:

The step of adapting coding/decoding procedure modifies the puncturing and interleaving

steps of the coder/decoder as a function of the selected redundancy distributing schema [e.g., see

col. 20, lines 1-37].

Claim 3:

Except the features discussed above, '669 Eroz further discloses the following as claimed by

applicant, comprising:

The step of adapting coding/decoding procedure eliminates one or more elementary coding steps of the puncturing and interleaving of the coding/decoding as a function of the selected redundancy distributing schema [e.g., see col. 20, lines 1-37].

Claim 4:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The step of adapting coding/decoding procedure modify one or more remaining elementary coding steps of the puncturing and interleaving of the coding/decoding as a function of the selected redundancy distributing schema [e.g., see col. 20, lines 1-37].

Claim 5:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The elementary coding steps use convolution codes [col. 1, lines 59-62].

Claim 6:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The elementary coding steps use block codes [col. 1, lines 63-67].

Claim 7:

Except the features discussed above, '669 Eroz further discloses the following as claimed by

applicant, comprising:

The transmission condition parameter can be the bit error, packet error rate, signal/noise ratio,

etc. [e.g., col. 1, lines 25-27, col. 5, line 20-22].

Claim 8:

Except the features discussed above, '669 Eroz further discloses the following as claimed by

applicant, comprising:

The transmission condition observation step and redundancy selection step are executed at a

transmitter [e.g., the Mobile RF Transmitter (118), Fig. 1].

Claim 9:

Except the features discussed above, '669 Eroz further discloses the following as claimed by

applicant, comprising:

The transmission condition observation step and redundancy selection step are both executed

at a transmitter and a receiver [e.g., the Base RF Receiver (124), Fig. 1]

Conclusion

8. To expedite the process of examination, the examiner requests that all future

correspondences in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set

forth by the Examiner prior to the office action, that applicant should provide and link to the most

specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

9. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure as following: U.S. Patent No. 6,389,574 issued to Belveze et al. The subject matter

disclosed therein is pertinent to a system for detecting a discrete symbol sequence from an

observation signal and a Viterbi algorithm of Turbo codes.

Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Susan Y Chen whose telephone number is (703) 308-1155. The examiner can

normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Safet Metjahic can be reached on (703) 308-1436. The fax phone number for the organization

where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should

be directed to the receptionist whose telephone number is (703)308-6296.

Susan Chen
Jan. 9, 2004

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